ADV7524

Low Power, 150 MHz HDMI Transmitter with CEC Support

Features

- Low power HDMI transmitter ideal for portable applications
- CEC controller and buffer reduces system overhead
- Incorporates HDMI 1.3 (x.v.Color) technology
- Compatible with DVI 1.0
- Optional embedded HDCP keys to support HDCP 1.3
- Single 1.8 V power supply
- Video/audio inputs accept logic levels from 1.8 V to 3.3 V

Applications

- Cellular handsets
- Digital video cameras
- Digital still cameras
- Personal media players
- Gaming
- DVD players and recorders
- Digital set-top boxes

The ADV7524 is a 150 MHz High-Definition Multimedia Interface (HDMI™) transmitter ideal for use in portable electronics, including HD video camcorders, digital still cameras, cellular handsets, gaming consoles, and portable media players.

The digital video interface incorporates HDMI technology and supports HDTV formats up to 1080p. With the optional inclusion of embedded HDCP keys, the ADV7524 allows the secure transmission of protected content, as specified by the HDCP 1.3 protocol.

The ADV7524 supports both S/PDIF and 2-channel I²S audio. Its high fidelity, 2-channel I²S bus can transmit audio at 192 kHz. Compressed audio, including Dolby® Digital and DTS,® is supported via S/PDIF.

Data sheets, software/hardware guides, software driver reference code/documentation, and reference design schematics are available from Analog Devices local sales and marketing personnel. Samples and evaluation kits are also available.

Advantiv®
Advanced Television Solutions
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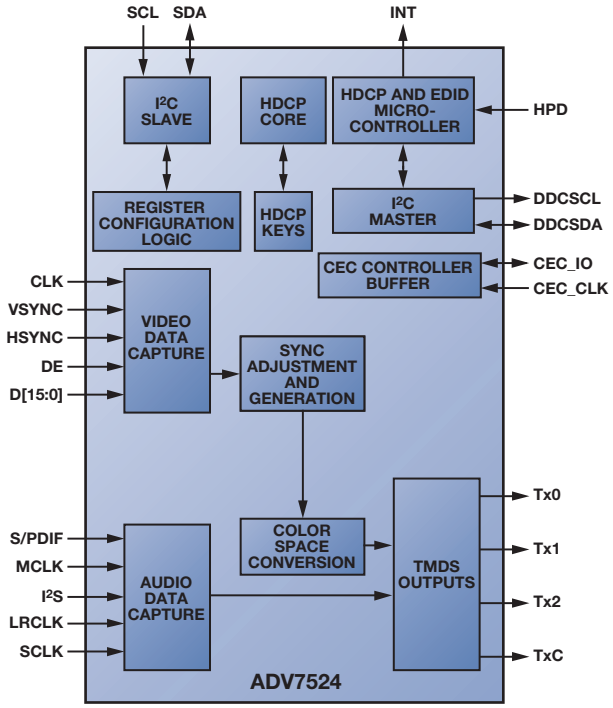
www.analog.com/Advantiv

ANALOG DEVICES

Functional Block Diagram



Digital Video

- 150 MHz operation supports all video resolutions from 480i to 1080p
- Programmable two-way color space converter
- Supports RGB, YCrCb, DDR
- Supports ITU656-based embedded syncs
- Auto input video format timing detection (CEA-861D)

Digital Audio

- Supports standard S/PDIF for stereo LPCM or compressed audio up to 192 kHz
- 2-channel uncompressed LPCM I²S audio up to 192 kHz

Special Features for Easy System Design

- On-chip MPU with I²C master to perform EDID reading and HDCP operations; reports HDMI events through interrupts and registers
- 5 V tolerant I²C and HPD I/Os, no extra device needed
- No audio master clock needed for supporting S/PDIF and I²S
- Compatible with AD80216 HDMI companion chip
  - 5 V generator for hot plug detect in portable applications

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